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AGRICULTURE.

CONNECTICUT.

Hon. WILLIAM R. MERRIAM,
Director of the Census.

SIR: I have the honor to transmit herewith, for publication in bulletin form, the statistics of agriculture for the state of Connecticut, taken in accordance with the provisions of section 7 of the act of March 3, 1899. This section requires that—

The schedules relating to agriculture shall comprehend the following topics: Name of occupant of each farm, color of occupant, tenure, acreage, value of farm and improvements, acreage of different products, quantity and value of products, and number and value of live stock. All questions as to quantity and value of crops shall relate to the year ending December thirty-first next preceding the enumeration.

The land surface of Connecticut comprises 4,845 square miles, of which 3,612.6, or 74.6 per cent, are contained in farms. The state lies on the southern slope of the New England hill region. Its surface is much diversified. There are no mountains, but the many rivers which flow across the state from the north into Long Island Sound are flanked by numerous ranges of hills, rounded in the east and increasing in ruggedness in the west.

Only a small portion of the soil is arable and the acreage under the plow is less than 7 per cent of the farm area. Most of the tillable land is very fertile, producing crops that are surpassed in but few sections of the country. The larger portion of the arable land is found in the river valleys, of which the most important are the Connecticut and the Housatonic. Of such lands the area devoted to the production of hay is three times that used in the growing of all other crops. The nonarable land is, as a rule, well adapted to grazing, pastures and woodlands constituting nearly three-fourths of the acreage of farms.

The value of the 26,948 farms is \$97,425,068, of which

\$44,983,560, or 46.2 per cent, represents the value of the buildings, and \$52,441,508, or 53.8 per cent, the value of the land and improvements exclusive of buildings.

The value of all farm products of 1899 was \$28,276,948. The value of that portion of these products fed to live stock on the farms of the producers was \$6,178,000. Deducting this amount leaves \$22,098,948, the gross income of all farms in 1899. This income equals 19.5 per cent of the capital invested in farm property. Under the term "farm property" is included the value of the land, improvements, and buildings, implements and machinery, and live stock. This valuation June 1, 1900, was \$113,305,580.

In 1900, as in all preceding census years, no reports were secured of expenditures for taxes, interest, insurance, or feed purchased, and hence no statement of net farm income can be given.

The dairy interest, the produce of which in 1899 was valued at \$7,090,188, or 32.1 per cent of the gross income of farms, stands first in the agriculture of Connecticut. If to this value be added the income derived from poultry and eggs, animals sold and slaughtered, wool and mohair, and honey and wax, the great relative importance of the animal industry is strikingly shown. The aggregate value of these items in 1899 was \$11,651,359, or 52.7 per cent of the income from all sources.

Hay and forage and the cereals are not in Connecticut, as in many states, the sources of any considerable direct income, their production being almost wholly incident to the dairy and live-stock industries. This is shown by the fact that in 1899 farm products, aggregating 85 per cent of the value of the year's production of hay and grain, were fed to live stock on the farms of the producers.

As early as 1640 the colonists discovered that the soil and climate of the Connecticut and Housatonic valleys were peculiarly adapted to the successful cultivation of tobacco. This discovery was one of the factors leading to the emigration from Massachusetts and the settlement of Connecticut in the seventeenth century. The use of tobacco as a medium of exchange at that time, and the facility with which it has always been convertible into cash, have made this product a favorite with farmers possessing land suited to its growth. Most of the good tobacco land is found in Hartford county, which, in 1899, produced 80.2 per cent of the tobacco raised in the state, and over one-half of that grown in the 6 New England states. The land devoted to its culture in Connecticut in the same year was only 10,120 acres, less than 2 per cent of the area of all reported crops, yet it brought to the producers the sum of \$3,074,022, or 18.9 per cent of the gross income. The average value per acre of the crop was \$303.76, which was greater than that of any other product, except flowers grown in greenhouses.

The area devoted to the growth of vegetables, including potatoes, sweet potatoes, and onions, was 39,499 acres, or

nearly four times that utilized in the cultivation of tobacco. The vegetables grown had a value of \$2,981,653, an amount somewhat less than the sum realized from tobacco, but nearly two and a half times as great as the value of the 6 cereals raised, which was \$1,251,888. The acreage in vegetables was, however, only 54.8 per cent of that in cereals, while the average income per acre was over four times as great. This fact explains in part the decline in the cultivation of cereals, and the increase in that of garden products. Of the total value of the cereals, \$994,885, or 79.5 per cent, represents the value of corn. Wheat is of little importance, its acreage being less than .5 per cent of that of all grains.

Of the farms of Connecticut over 50 per cent reported receipts from forest products in 1899. The value of these products was \$1,275,720, a little more than \$94 for each farm reporting such products.

Very respectfully,

L. G. Powers.
Chief Statistician for Agriculture.

AGRICULTURE IN CONNECTICUT.

GENERAL STATISTICS.

NUMBER AND SIZE OF FARMS.

The 26,948 farms of Connecticut comprise 2,312,083 acres, or 74.6 per cent of the total land surface of the state. The following table gives by decades, since 1850, the number of farms reported, the total and average acreage, and the per cent of farm land improved:

TABLE 1.—FARMS AND FARM ACREAGE: 1850 TO 1900.

CENSUS YEAR.	Number of farms.	NUMBER OF ACRES IN FARMS.				Per cent of farm land improved.
		Total.	Im-proved.	Unim-proved.	Average.	
1900.....	26,948	2,312,083	1,064,525	1,247,558	86	46.0
1890.....	26,350	2,253,432	1,379,419	874,013	86	61.2
1880.....	30,598	2,453,541	1,642,188	811,353	80	66.9
1870.....	25,508	2,364,416	1,646,752	717,664	98	69.6
1860.....	25,180	2,504,264	1,830,807	673,457	99	73.1
1850.....	22,445	2,383,879	1,768,178	615,701	106	74.2

The increase, since 1850, of 4,503 in the number of farms, is due to a division of the farms of the earlier date, and not to an increase in the area used in farming. The proportion of improved farm land has decreased steadily from 74.2 per cent, in 1850, to 46 per cent, in 1900. The largest relative decrease occurred in the last decade, a large acreage in every county, which ten years before was classed as improved, being reported in 1900 as unimproved. Of the area once reported as improved, but returned in 1900 as unimproved, it is probable that the greater portion was formerly meadow or tillable lands now used for pasture, and in some cases permitted to revert to a semiwild state. Such changes in the use of land are incidental to the growth in Connecticut in the last fifty years of the dairy interest and an increase in the area devoted to market gardening. They have led and are leading to a more perfect cultivation of the area classed as improved, resulting in a largely increased production of hay and vegetables, and enabling the farmers to keep a greater number of domestic animals and to secure larger farm incomes with smaller expenditure of human labor.

FARM RESOURCES AND PRODUCTS.

The values of farm land and improvements, implements and machinery, live stock, and farm products, are given in Table 2 for each census year, beginning with 1850.

TABLE 2.—VALUES OF FARM PROPERTY AND PRODUCTS: 1850 TO 1900.

CENSUS YEAR.	Total value of farm property.	Land, im-provements, and build-ings.	Implements and machinery.	Live stock.	Farm products. ¹
1900.....	\$113,305,580	\$97,425,068	\$4,948,300	\$10,932,212	\$28,276,948
1890.....	108,050,708	95,000,595	3,075,495	9,974,618	17,924,310
1880.....	135,185,834	121,083,910	3,162,628	10,959,296	18,010,075
1870 ²	145,033,019	124,241,382	3,246,599	17,545,038	26,482,150
1860.....	104,480,565	90,830,005	2,339,481	11,311,079	-----
1850.....	82,086,453	72,726,422	1,892,541	7,467,490	-----

¹ For year preceding that designated.

² Values in 1870 were reported in depreciated currency. To reduce to the specie basis of the other figures they must be diminished by one-fifth.

³ Includes betterments and additions to live stock.

In the last ten years the total farm wealth of Connecticut increased \$5,254,872. Of this amount, \$2,424,473, or 46.1 per cent, represents the increase in the value of land, improvements, and buildings; \$1,872,805, or 35.7 per cent, that of implements and machinery; and \$957,594, or 18.2 per cent, that of live stock. The value of the farm products of 1899 was \$28,276,948, or 57.8 per cent in excess of that of 1889. A portion of the increase in values noted in the case of farm products and of implements and machinery, is doubtless merely apparent, the result of a more detailed enumeration of these items in 1900 than heretofore.

FARMS CLASSIFIED BY RACE AND TENURE.

Table 3 gives a comparative exhibit of farm tenure for 1880, 1890, and 1900. In Table 4 the tenure of farms for 1900 is given by race of farmer. The farms under the classification "owners" in Table 3 are subdivided in Table 4 into groups, designated as "owners," "part owners," "owners and tenants," and "managers." These terms denote, respectively: (1) Farms operated by individuals who own all the land they cultivate; (2) farms operated by individuals who own a part of the land and rent the remainder from others; (3) farms operated under the joint direction and by the united labor of two or more individuals, one owning the farm or a part of it, and the other, or others, owning no part, but receiving for supervision or labor a share of the products; and (4) farms operated by individuals who receive for their supervision and other services a fixed salary from the owners.

TABLE 3.—NUMBER AND PER CENT OF FARMS OF SPECIFIED TENURES: 1880 TO 1900.

CENSUS YEAR.	Total number of farms.	NUMBER OF FARMS OPERATED BY—			PER CENT OF FARMS OPERATED BY—		
		Owners.	Cash tenants.	Share tenants.	Owners.	Cash tenants.	Share tenants.
1900	26,948	23,481	2,763	704	87.1	10.3	2.6
1890	26,350	23,310	2,102	938	88.5	8.0	3.5
1880	30,598	27,472	1,920	1,206	89.8	6.3	3.9

TABLE 4.—NUMBER OF FARMS CLASSIFIED BY RACE AND TENURE, JUNE 1, 1900, WITH PERCENTAGES.

PART 1.—NUMBER OF FARMS OF SPECIFIED TENURES.

RACE.	Total number of farms.	Own-ers.	Part own-ers.	Own-ers and ten-ants.	Man-agers.	Cash ten-ants.	Share ten-ants.
The State.....	26,948	21,224	1,132	349	776	2,763	704
White.....	26,839	21,148	1,130	348	769	2,745	699
Colored ¹	109	76	2	1	7	18	5

PART 2.—PER CENT OF FARMS OF SPECIFIED TENURES.

The State.....	100.0	78.7	4.2	1.3	2.9	10.3	2.6
White.....	100.0	78.8	4.2	1.3	2.9	10.2	2.6
Colored ¹	100.0	69.8	1.8	0.9	6.4	16.5	4.6

¹ Including 2 Indians.

Of the farms of 1900 classified in Table 3 as those of "owners," 21,224 were farms which were owned by the operators; 1,132 were farms, a part of each of which was owned and a part leased; 349 were farms operated jointly by their owners in partnership with tenants; and 776 were conducted by salaried managers. The farms of owners included under these four subclasses aggregated, in 1880, 27,472. In twenty years, they decreased in number 3,991, while rented farms increased from 3,126 to 3,467. The number of cash tenants increased from 1,920 to 2,763, and the share tenants decreased from 1,206 to 704. The farms operated by their owners in 1880 constituted 89.8 per cent of all farms, and, in 1900, 87.1. There was thus a decrease in the relative as well as in the actual number of farms operated by their owners.

OWNERSHIP OF RENTED FARMS.

The ownership of 3,276 of the 3,467 rented farms was ascertained by the enumerators. That of 191 was unreported. The titles to the 3,276 farms are vested in 3,158 individuals, or an average of a little more than 103 farms to an hundred owners. Of the 3,158 owners, 3,058 possess 1 farm each, the others holding titles of from 2 to 6 farms each, as follows: 87, 2; 11, 3; 1, 5; and 1, 6. The titles to 2,890 farms are held by 2,772 residents of Connecticut; of these farms, 2,553 are located in the same counties with their owners. Of the nonresident owners of rented farms, 337 are residents of the North Atlantic States, 11 of the South Atlantic, 22 of the North Central, 6 of the South Central, 7 of the Western States, and 3 of foreign countries.

No nonresident possesses more than one farm in Connecticut, and all of the farms thus owned number but 386. These farms constitute less than one in 70 of those in the state, and have an average value of \$3,751. Nonresident owners are not, therefore, relatively very numerous, and their average holdings are so small as to negative the assumption that any considerable number of them belong to what, in other lands, is known as a permanent class of nonresident landlords. The further fact that only 100 residents of the state possess more than 1 rented farm each, and of these only 13 own more than 2 farms each, when taken in connection with the average value of rented farms, demonstrates that there is not growing up in the state, any more than outside of it, a permanent class of land owners deriving their support from tenant-operated farms in Connecticut.

FARM WEALTH OF WHITE AND COLORED FARMERS.

Of the colored farmers of Connecticut, 2 are Indians, and 107 are negroes. The two Indian farmers are both owners. Their farms contain 57 acres of land, worth, with their buildings, implements, and live stock, \$6,987. Of the negro farmers, 74 are owners, 2 are part owners, 7 are salaried managers, 18 cash tenants, 5 share tenants, and 1 operates his farm in partnership with a tenant. The value of the farms owned by negroes, including the implements, machinery, and live stock upon them, together with the value of the implements, machinery, and live stock upon the farms which other negroes operate as tenants, is \$101,192. This amount is probably somewhat in excess of the actual wealth of the negro farmers of Connecticut.

Table 5 gives a classification by tenure of the number and area of farms and the value of property on farms operated by white and colored farmers, respectively. Table 6 presents a similar classification of the average values of the several forms of farm property, June 1, 1900, and of the products of 1899 not fed to live stock, and the per cent of the value of those products to the total value of farm property.

TABLE 5.—NUMBER AND AREA OF FARMS, AND VALUE OF FARM PROPERTY, JUNE 1, 1900, CLASSIFIED BY RACE OF FARMER, AND BY TENURE, WITH PERCENTAGES.

RACE OF FARMER, AND TENURE.	Number of farms.	ACRES IN FARMS.			VALUE OF FARM PROPERTY.	
		Average number.	Total number.	Per cent.	Total.	Per cent.
The State.....	26,948	85.8	2,312,083	100.0	\$113,305,580	100.0
Total white farmers.....	26,839	86.0	2,307,890	99.8	113,074,058	99.8
Total colored farmers ¹	109	38.6	4,193	0.2	231,522	0.2
Owners.....	21,224	82.0	1,739,477	75.2	83,228,337	73.5
Part owners.....	1,132	114.8	129,942	5.6	7,228,361	6.4
Owners and tenants.....	349	118.5	41,355	1.8	1,921,550	1.7
Managers.....	776	134.9	104,667	4.5	7,965,041	7.0
Cash tenants.....	2,763	80.3	221,794	9.6	9,745,054	8.6
Share tenants.....	704	106.3	74,848	3.3	3,214,237	2.8

¹ Including 2 Indians.

TABLE 6.—AVERAGE VALUES OF FARM PROPERTY AND PRODUCTS, CLASSIFIED BY RACE OF FARMER AND BY TENURE.

RACE OF FARMER AND TENURE.	AVERAGE VALUES PER FARM OF—					Per cent of products not fed, to value of farm property.
	Farm property, June 1, 1900.				Products of 1899 not fed to live stock.	
	Land and im- prove- ments, (except build- ings).	Build- ings.	Imple- ments and machin- ery.	Live stock.		
The State.....	\$1,946	\$1,669	\$184	\$406	\$820	19.5
Total white farmers.....	1,949	1,673	184	407	822	19.5
Total colored farmers ¹	1,166	731	70	157	354	16.6
Owners.....	1,761	1,604	175	381	764	19.5
Part owners.....	3,217	2,228	282	658	1,638	25.7
Owners and tenants.....	2,481	2,126	279	628	1,387	25.2
Managers.....	5,417	3,791	387	669	1,091	10.6
Cash tenants.....	1,750	1,274	140	363	685	19.4
Share tenants.....	2,161	1,713	186	506	1,160	25.4

¹ Including 2 Indians.

The average area of the farms of colored farmers is 38.5 acres while that of white farmers is 86 acres, or more than twice as great. The lands, buildings, implements, and live stock on the farms of white farmers have much higher values per farm than those of colored farmers.

RELATIVE AREAS AND VALUES OF FARMS OF DIFFERENT TENURES.

The average size of all farms in Connecticut is 85.8 acres; of farms of "owners," 82 acres; "part owners," 114.8; "owners and tenants," 118.5; "managers," 134.9; "cash tenants," 80.3, and "share tenants," 106.3. Taking these figures in connection with those of Table 6, it is found that the farms of "managers" are not only larger, but more valuable per acre, than the farms of any other group classified by tenure. The farms of "part owners" and those of "owners and tenants" are larger than the farms of any other group, except that of "managers." They are also more valuable, and show both for white and colored farmers the greatest percentages of gross income to total value of farm property. The group of farms with managers returns the smallest percentage of income.

FARMS CLASSIFIED BY AREA.

For farms classified by area, Tables 7 and 8 give, with slight variations, the facts shown in Tables 5 and 6 for farms by race and tenure.

TABLE 7.—NUMBER AND ACREAGE OF FARMS, AND VALUE OF FARM PROPERTY, JUNE 1, 1900, CLASSIFIED BY AREA, WITH PERCENTAGES.

AREA.	NUMBER OF FARMS.		ACRES IN FARMS.		VALUE OF FARM PROPERTY.	
	Total.	Per cent.	Total.	Per cent.	Total.	Per cent.
The State.....	26,948	100.0	2,312,083	100.0	\$113,305,580	100.0
Under 3 acres.....	377	1.4	893	0.5	887,711	0.8
3 to 9 acres.....	2,050	7.6	12,408	0.5	4,856,863	4.3
10 to 19 acres.....	2,699	10.0	38,361	1.7	7,920,755	7.0
20 to 49 acres.....	6,218	23.1	204,106	8.8	20,186,337	17.8
50 to 99 acres.....	6,943	25.8	485,968	21.0	27,414,666	24.2
100 to 174 acres.....	5,494	20.4	695,076	30.1	26,797,881	23.7
175 to 259 acres.....	1,945	7.2	401,977	17.4	13,425,608	11.8
260 to 499 acres.....	1,009	3.7	327,149	14.2	8,787,704	7.8
500 to 999 acres.....	187	0.7	111,037	4.8	2,416,892	2.1
1,000 acres and over.....	26	0.1	35,058	1.5	611,163	0.5

TABLE 8.—AVERAGE VALUES OF FARM PROPERTY AND PRODUCTS, CLASSIFIED BY AREA.

AREA.	AVERAGE VALUES PER FARM OF—					Per cent of products not fed, to value of farm property.
	Farm property, June 1, 1900.				Products of 1899 not fed to live stock.	
	Land and improvements (except buildings).	Buildings.	Implements and machinery.	Live stock.		
The State.....	\$1,946	\$1,669	\$184	\$406	\$820	19.5
Under 3 acres	775	1,419	57	74	579	24.6
3 to 9 acres	852	1,327	75	115	369	15.6
10 to 19 acres	1,245	1,422	104	164	454	15.4
20 to 49 acres	1,423	1,466	134	223	570	17.6
50 to 99 acres	1,818	1,534	183	381	794	20.1
100 to 174 acres	2,311	1,774	231	562	1,052	21.6
175 to 259 acres	3,475	2,321	299	808	1,859	19.7
260 to 499 acres	4,379	2,803	391	1,136	1,841	21.1
500 to 999 acres	6,127	4,584	633	1,581	2,422	18.7
1,000 acres and over	13,215	6,688	1,042	2,561	4,264	18.1

The average values given in Table 8 are, with the exception of those of buildings and products, lowest for farms containing less than 3 acres, and rise in an unbroken series to those containing 1,000 acres and over. The average gross income per acre is smallest for the farms containing over 1,000 acres, and greatest for those containing less than 3 acres. For the former it is \$3.16 per acre, and for the latter, \$244.51. In the group of farms with less than 3 acres are many florists' establishments, hence the high averages per farm and per acre for all values shown in the tables for that group.

Of the farms containing over 1,000 acres, 19 are operated by "owners," 2 by "part owners," 3 by "managers," and 1 each by "cash tenants" and "share tenants." The farms of "managers" are relatively most numerous in the groups containing over 100 acres. In the state as a whole there are nearly 4 times as many "cash" as "share tenants." In the groups containing less than 100 acres, the "cash tenants" are from 5 to 6 times as numerous as "share tenants," while in the groups containing over 100 acres, the ratios are quite different. For farms with 175 to 259 acres, the "cash tenants" are only twice as numerous as the "share tenants." For farms of 500 to 999 acres, the "cash tenants" are not quite twice as numerous as the "share tenants," and for those with 1,000 acres and over, the "cash tenant" and "share tenant" farms number the same.

FARMS CLASSIFIED BY PRINCIPAL SOURCE OF INCOME.

Tables 9 and 10 present the leading facts concerning the number, areas, values, and average values of farms and farm products classified by principal source of income. If for any farm 40 per cent of the products of 1899 not fed to live stock consists of hay and grain, the farm is designated a hay and grain farm. Should 40 per cent of the products consist of vegetables, the farm is designated a vegetable farm. The farms of the other groups are classified in accordance with the same general principle. Farms with no income reported in 1899 are classified according to the agricultural operations upon other farms in the same locality.

TABLE 9.—NUMBER AND AREA OF FARMS, AND VALUE OF FARM PROPERTY, JUNE 1, 1900, CLASSIFIED BY PRINCIPAL SOURCE OF INCOME, WITH PERCENTAGES.

PRINCIPAL SOURCE OF INCOME.	NUMBER OF FARMS.		ACRES IN FARMS.		VALUE OF FARM PROPERTY.	
	Total.	Per cent.	Total.	Per cent.	Total.	Per cent.
The State.....	26,948	100.0	2,312,083	100.0	\$113,305,580	100.0
Hay and grain.....	1,917	7.1	153,670	6.6	7,762,461	6.8
Vegetables.....	1,841	6.8	81,924	3.5	8,322,149	7.3
Fruit.....	564	2.1	30,868	1.3	2,621,810	2.3
Live stock.....	7,045	26.1	506,821	21.9	21,037,370	18.6
Dairy produce.....	8,296	30.8	879,975	38.1	41,332,713	36.5
Tobacco.....	1,960	7.3	133,013	5.8	10,136,800	9.0
Flowers and plants.....	168	0.6	1,894	0.1	1,313,286	1.2
Nursery stock.....	23	0.1	1,865	0.1	296,940	0.3
Miscellaneous.....	5,134	19.1	522,055	22.6	20,402,051	18.0

TABLE 10.—AVERAGE VALUES OF FARM PROPERTY AND PRODUCTS CLASSIFIED BY PRINCIPAL SOURCE OF INCOME.

PRINCIPAL SOURCE OF INCOME.	AVERAGE VALUES PER FARM OF—					Per cent of products not fed, to value of farm property.
	Farm property, June 1, 1900.				Products of 1899 not fed to live stock.	
	Land and improvements (except build-ings).	Build-ings.	Imple-ments and machin-ery.	Live stock.		
The State.....	\$1,946	\$1,669	\$184	\$406	\$820	19.5
Hay and grain.....	2,241	1,588	102	118	289	7.1
Vegetables.....	2,241	1,855	174	250	744	16.5
Fruit.....	2,306	1,885	198	260	784	16.9
Live stock.....	1,297	1,219	136	337	437	16.8
Dairy produce.....	2,301	1,846	230	605	1,005	20.2
Tobacco.....	2,188	2,378	234	402	1,842	35.4
Flowers and plants.....	2,889	4,631	199	98	3,028	38.7
Nursery stock.....	9,153	3,221	213	323	6,758	52.3
Miscellaneous.....	1,852	1,567	187	368	718	18.1

The dairy farms have the largest average area, 106.1 acres. The other groups shown in Tables 9 and 10 have average acreages as follows: Miscellaneous, 101.7; nursery stock, 81; hay and grain, 80.2; live stock, 71.9; tobacco, 67.9; fruit, 54.7; vegetable, 44.5; and flower and plant, 11.3. Of all farms, owners operate 78.7 per cent, but they conduct a smaller per cent of the farms in each of the groups mentioned above, except florists' establishments and miscellaneous farms. Nurseries, florists' establishments, tobacco farms, and dairies report the largest average gross income of any group of farms classified by principal source of income, and hay and grain farms the lowest. Nurseries have the largest average investment in farm property; live-stock and miscellaneous farms the smallest. Of the farms of Connecticut, 7,045 are designated "live-stock" farms. Their average size is 71.9 acres, and their average income is \$487, or \$6.77 per acre. With the exception of hay and grain farms, no other group reports a smaller average income per acre. The average for hay and grain farms is \$3.61. The live-stock farms in Connecticut are those of farmers who, for various reasons, cultivate but little, if any, land, and keep but few dairy cows. They keep a small number of domestic animals and poultry, and receive a smaller return from their land than might be received therefrom by more active management. Many of the hay and grain farms are farms that are semi-abandoned, the only product obtained therefrom being hay.

FARMS CLASSIFIED BY REPORTED VALUE OF PRODUCTS NOT FED TO LIVE STOCK.

Tables 11 and 12 present data relating to farms classified by the reported value of products not fed to live stock. Of the farms of the state, 136 report no income, and 581 incomes of less than \$50 each. The absence of incomes in the first case and the small incomes in the second are due to a number of causes. Some of the farms were practically unoccupied in 1899, but were being cultivated at the time of the enumeration in 1900. In this class are included the semiabandoned farms of 1899, from which only a little hay was gathered, or on which but a few acres of land were cultivated. Some of the farms with little or no reported income had changed owners or tenants, and the farmers in charge June 1, 1900, were unable to give definite information concerning the products of the preceding year. To this extent, the report falls short of giving a complete exhibit of the incomes of the farms in 1899. Other farms reporting little or no incomes are summer homes or estates held for pleasure, and not for the profit to be derived from farming. To this class belong many of the farms with reported incomes of from \$50 to \$99. Among the farms with no reported income are 3 florists' establishments containing less than 3 acres each, which were established in 1899 and sold no products that year. The percentages of income upon investments form a continuous upward series from the group with the smallest to that with the largest average income.

TABLE 11.—NUMBER AND AREA OF FARMS, AND VALUE OF FARM PROPERTY, JUNE 1, 1900, CLASSIFIED BY REPORTED VALUE OF PRODUCTS NOT FED TO LIVE STOCK, WITH PERCENTAGES.

VALUE OF PRODUCTS NOT FED TO LIVE STOCK.	NUMBER OF FARMS.		ACRES IN FARMS.		VALUE OF FARM PROPERTY.	
	Total.	Per cent.	Total.	Per cent.	Total.	Per cent.
The State.....	26,948	100.0	2,312,083	100.0	\$113,305,580	100.0
\$0.....	136	0.5	6,764	0.3	495,610	0.4
\$1 to \$49.....	581	2.2	20,221	0.9	1,051,500	0.9
\$50 to \$99.....	1,279	4.7	48,104	2.1	2,454,425	2.2
\$100 to \$249.....	4,905	18.2	217,434	9.4	10,733,095	9.5
\$250 to \$499.....	6,785	25.2	441,832	19.1	20,204,329	17.8
\$500 to \$999.....	6,510	24.2	623,059	27.0	27,164,750	24.0
\$1,000 to \$2,499.....	5,258	19.5	710,866	30.7	33,973,021	30.0
\$2,500 and over.....	1,494	5.5	243,803	10.5	17,227,950	15.2

TABLE 12.—AVERAGE VALUES OF FARM PROPERTY AND PRODUCTS, CLASSIFIED BY REPORTED VALUE OF PRODUCTS NOT FED TO LIVE STOCK.

VALUE OF PRODUCTS NOT FED TO LIVE STOCK.	AVERAGE VALUES PER FARM OF—					Per cent of products not fed, to value of farm property.
	Farm property, June 1, 1900.				Products of 1899 not fed to live stock.	
	Land and im- prove- ments (except build- ings).	Build- ings.	Imple- ments and machin- ery.	Live stock.		
The State.....	\$1,946	\$1,669	\$184	\$406	\$820	19.5
\$0.....	1,598	1,863	69	114	29	1.6
\$1 to \$49.....	671	1,016	50	73	86	4.6
\$50 to \$99.....	819	962	54	84	175	8.0
\$100 to \$249.....	952	1,032	72	132	359	12.1
\$250 to \$499.....	1,318	1,295	119	246	707	17.0
\$500 to \$999.....	1,915	1,627	192	439	1,507	23.8
\$1,000 to \$2,499.....	3,061	2,366	305	729	4,112	38.7
\$2,500 and over.....	5,767	4,038	550	1,176		

Beginning with the smallest, the average acreages of farms grouped by income are as follows: 49.7; 34.8; 37.6; 44.3; 65.1; 95.7; 135.2; 163.2. The farms with no reported incomes have areas varying from less than 3 to over 500

acres, and are operated as follows: 96 by "owners" and "part owners," 3 by "managers," 35 by "cash tenants," and 2 by "share tenants."

TABLE 13.—NUMBER AND AREA OF FARMS AND VALUE OF FARM PROPERTY, JUNE 1, 1900; VALUE OF PRODUCTS OF 1899 NOT FED TO LIVE STOCK, AND EXPENDITURES IN 1899 FOR LABOR AND FERTILIZERS, BY COUNTIES.

COUNTIES.	NUMBER OF FARMS.		ACRES IN FARMS.		VALUE OF FARM PROPERTY.				Value of products not fed to live stock.	EXPENDITURES.	
	Total.	With build-ings.	Total.	Im-proved.	Land and improve-ments (except buildings).	Buildings.	Imple-ments and ma-chinery.	Live stock.		Labor.	Fertilizers.
The State -----	26, 948	26, 507	2, 312, 083	1, 064, 525	\$52, 441, 508	\$44, 983, 560	\$4, 948, 300	\$10, 932, 212	\$22, 098, 948	\$4, 108, 420	\$1, 078, 240
Fairfield -----	4, 727	4, 645	280, 106	162, 061	13, 264, 060	9, 571, 680	903, 450	1, 763, 097	3, 627, 273	759, 360	101, 080
Hartford -----	5, 110	5, 015	348, 806	198, 562	11, 271, 468	10, 622, 840	1, 102, 530	1, 993, 974	6, 030, 460	1, 023, 350	528, 970
Litchfield -----	4, 164	4, 086	471, 151	230, 287	7, 115, 230	6, 241, 090	877, 690	2, 181, 325	3, 397, 429	644, 940	62, 280
Middlesex -----	1, 788	1, 766	150, 005	51, 491	2, 699, 550	2, 386, 160	287, 210	629, 517	1, 171, 168	220, 300	53, 680
New Haven -----	3, 472	3, 416	260, 805	126, 446	7, 733, 910	6, 013, 350	713, 280	1, 408, 484	3, 017, 889	624, 580	155, 260
New London -----	3, 014	2, 960	324, 706	127, 331	4, 652, 210	4, 053, 190	473, 170	1, 252, 941	2, 092, 913	360, 850	82, 680
Tolland -----	2, 120	2, 109	205, 693	65, 608	2, 879, 880	2, 499, 930	383, 190	733, 766	1, 223, 063	137, 400	49, 380
Windham -----	2, 553	2, 510	270, 711	102, 739	3, 325, 700	3, 584, 720	457, 780	1, 019, 108	1, 532, 753	282, 640	44, 910

COUNTY STATISTICS OF AGRICULTURE.

Fairfield and Middlesex counties report fewer farms in 1900 than in 1890, and decreased acreage and values. All other counties report more farms although some show a slight diminution in the total farm value. All the counties report an increase in the value of farming implements and machinery and, with the exception of Fairfield county, greater resources in live stock. In two counties, Tolland and Windham, the value of the buildings exceeds that of the land and other improvements. In these counties, however, the average value of buildings per acre of farm land is very low, being \$12.15 in Tolland county, while in Fairfield county, it is \$34.17. The average value of farm land exclusive of buildings also finds its extremes in these counties, being for the former \$11.57 per acre and for the latter \$47.35 per acre. These high average values in Fairfield county arise in part from its close proximity to New York city markets, and in part from the fact that many of the farms are owned as homes and kept in a high state of improvement by individuals in business in that city.

CLASSIFICATION, NUMBER, AND VALUE OF LIVE STOCK.

At the request of the various live-stock associations of the country, a new classification of domestic animals was adopted for the census of 1900. Neat cattle are grouped by age in accordance with their present and prospective relations to the dairy industry and to the supply of meat products. Horses and mules are classified by age, and neat cattle and sheep by age and sex. The new classification permits very close comparison with the figures obtained at preceding decennial periods.

Table 14 gives the number, value, and average value per head of all live stock on farms and the number of domestic animals not on farms.

TABLE 14.—NUMBER AND VALUE OF DOMESTIC ANIMALS, FOWLS, AND BEES, JUNE 1, 1900.

LIVE STOCK.	Age, in years.	ON FARMS AND RANGES.			Not on farms or ranges.
		Number.	Value.	Average value.	
Calves -----	Under 1 -----	37, 300	\$298, 317	\$7.86	Number. 619
Steers -----	1 and under 2 -----	3, 356	59, 630	17.77	107
Steers -----	2 and under 3 -----	3, 254	97, 538	29.97	167
Steers -----	3 and over -----	7, 219	439, 034	60.82	194
Bulls -----	1 and over -----	5, 025	120, 728	24.03	19
Heifers -----	1 and under 2 -----	26, 476	461, 570	17.43	487
Cows kept for milk -----	2 and over -----	126, 434	4, 262, 545	33.71	6, 087
Cows and heifers not kept for milk.	2 and over -----	7, 994	209, 303	26.26	294
Colts -----	Under 1 -----	429	17, 952	41.85	46
Horses -----	1 and under 2 -----	1, 480	94, 030	63.53	104
Horses -----	2 and over -----	50, 067	3, 701, 650	73.06	40, 509
Mule colts -----	Under 1 -----	20	660	33.00	-----
Mules -----	1 and under 2 -----	27	1, 810	67.04	1
Mules -----	2 and over -----	231	20, 265	87.73	46
Asses and burros. -----	All ages -----	24	780	32.50	18
Lambs -----	Under 1 -----	13, 966	40, 302	2.89	58
Sheep (ewes) -----	1 and over -----	20, 655	85, 730	4.15	90
Sheep (rams and wethers).	1 and over -----	2, 366	11, 388	4.81	1
Swine -----	All ages -----	46, 447	326, 857	7.04	4, 890
Goats -----	All ages -----	313	1, 945	6.21	237
Fowls: ¹					
Chickens ² -----		1, 073, 026			
Turkeys -----		7, 717			
Geese -----		3, 530	644, 050		
Ducks -----		14, 100			
Bees (swarms of) -----		11, 438	40, 528	3.54	
Value of all live stock.			10, 932, 212		

¹The number reported is of fowls over 3 months old. The value is of all, old and young.

²Including Guinea fowls.

The comparatively high average value of steers 3 years and over is the result of including in this class the high-priced work oxen still used in certain districts of the state. The number so employed is continually decreasing, as the number of all steers over 1 year, in 1900, was only 13,829, while the number of working oxen reported in 1890 was 21,019; in 1880, 28,418; in 1870, 39,639; and in 1860, 47,939.

The value of all live stock on farms June 1, 1900, was \$10,932,212. No report was secured of the value of the animals not on farms. It is probable, however, that these animals have somewhat higher average values than those on farms, but, allowing the same averages, the total value of live stock, exclusive of poultry and bees not on farms, is substantially \$11,862,000.

DISTRIBUTION OF HORSES AND DAIRY COWS ON FARMS BY SPECIFIED CLASSES.

Table 15 presents, for a few of the groups of farms, the number of farms reporting, the total number of horses and dairy cows for each group, and the average number to a farm. In computing the averages presented, only those farms which report the kind of stock under consideration are included.

TABLE 15.—DISTRIBUTION OF HORSES AND DAIRY COWS, BY SPECIFIED CLASSES OF FARMS, JUNE 1, 1900.

CLASSES.	HORSES.			DAIRY COWS.		
	Farms reporting.	Number.	Average number per farm.	Farms reporting.	Number.	Average number per farm.
Total	22,984	52,576	2.3	21,497	126,434	5.9
White farmers	22,912	52,442	2.3	21,448	126,309	5.9
Colored farmers ¹	72	134	1.9	49	125	2.6
Owners ²	19,459	43,741	2.2	18,378	104,359	5.7
Managers	610	2,124	3.5	592	4,738	8.0
Cash tenants	2,808	5,214	2.3	1,980	12,202	6.2
Share tenants	607	1,497	2.5	547	5,135	9.4
Under 20 acres	3,517	5,350	1.5	2,657	4,722	1.8
20 to 99 acres	11,393	22,654	2.0	10,902	44,195	4.1
100 to 174 acres	5,096	13,409	2.6	4,998	38,827	7.8
175 to 259 acres	1,821	6,074	3.3	1,799	20,183	11.2
260 acres and over	1,157	5,089	4.4	1,141	18,507	16.2
Hay and grain	803	1,666	2.1	468	1,313	2.8
Vegetable	1,554	3,440	2.2	1,000	2,946	2.9
Fruit	444	1,636	2.3	279	888	3.2
Live stock	6,070	11,578	1.9	5,662	20,896	3.7
Tobacco	1,810	4,634	2.6	1,513	7,851	5.2
Dairy produce	7,706	20,015	2.6	8,157	74,051	9.1
Miscellaneous ³	4,597	10,207	2.2	4,418	18,489	4.2

¹ Including 2 Indians.

² Including "part owners" and "owners and tenants."

³ Including "flower and plant" and "nursery stock."

The comparatively small number of negro farmers reporting horses and dairy cows renders of doubtful value any conclusions drawn from a comparison of the averages for the two races. The group of farms operated by managers, shown in Table 5 to have the largest average area of any group classified by tenure, also reports the largest average number of horses and dairy cows.

CHANGES IN THE LIVE-STOCK INDUSTRY IN FIFTY YEARS.

The progress of the live-stock industry since 1850 is shown in Table 16.

TABLE 16.—NUMBER OF DAIRY COWS, OTHER NEAT CATTLE, HORSES, MULES AND ASSES, SHEEP, AND SWINE: 1850 TO 1900.

CENSUS YEAR.	Dairy cows.	Other neat cattle.	Horses.	Mules and asses.	Sheep. ¹	Swine.
1900	126,434	90,624	52,576	302	23,021	46,447
1890	127,892	75,769	43,704	279	37,652	62,087
1880	116,319	120,567	44,940	589	59,431	68,699
1870	98,889	119,124	34,935	190	83,884	51,883
1860	98,877	143,030	33,276	82	117,107	75,120
1850	85,461	127,214	26,879	49	174,181	76,472

¹ Lambs not included.

The nature of the changes which have taken place during the past half century in the number of farm animals of the various classes indicates a revolution in the general character of agriculture in Connecticut. Since 1850, horses have increased in number 95.6 per cent, and dairy cows 47.9 per cent. On the other hand, the number of "other neat cattle" has decreased 28.8 per cent; the number of sheep, 86.8 per cent; and the number of swine, 39.3 per cent. The decrease in the number of these animals is a part of a change in American agriculture by which the meat-producing industry is being shifted to the West. The increase in the number of dairy cows, horses, and mules, is, at once, an adjustment of the agriculture of the state to meet the competition of the new lands of the West, and the outcome of the demand of a growing urban population for milk, cream, vegetables, and fruits. The cows supply one portion of this demand, and the work animals are needed in the cultivation of the soil to meet the other.

ANIMAL PRODUCTS.

The quantities and values of wool, mohair, dairy produce, and other animal products, including the values of fowls raised, and animals sold and slaughtered for food, are given in Table 17.

TABLE 17.—QUANTITIES AND VALUES OF ANIMAL PRODUCTS, VALUE OF POULTRY RAISED, AND VALUES OF ANIMALS SOLD AND SLAUGHTERED, IN 1899.

PRODUCTS.	Unit of measure or weight.	Quantity.	Value.
Wool	Pounds	104,438	\$22,534
Mohair and goat hair	Pounds	465	177
Milk	Gallons	71,969,862	
Cream	Gallons	1,893,255	
Butter	Pounds	4,591,789	7,090,188
Cheese	Pounds	40,623	
Eggs	Dozens	7,959,430	1,523,319
Poultry			984,207
Honey	Pounds	122,960	16,576
Wax	Pounds	4,090	
Animals sold			1,169,235
Animals slaughtered			845,123
Total			11,651,359

DAIRY COWS AND PRODUCTS.

Agricultural progress in the last ten years is nowhere shown more plainly than in the dairy industry. The milk produced in 1889 was 54,413,822 gallons, or 425.5 gallons per cow; in 1899, 71,969,862 gallons, or 569.2 gallons per cow. The total production of milk increased 32.3 per cent, and the average per cow 33.8 per cent.

The amount of butter produced on farms decreased in ten years 36.2 per cent, and the amount of cheese 63.9 per cent. This decrease is due in part to the transfer of the making of these products from the farm to the creamery and cheese factory, and still more to the large increase in the demand for milk and cream in cities.

POULTRY AND EGGS.

The value of the poultry raised in 1899 was \$984,207, and the 7,959,430 dozens of eggs produced the same year were valued at \$1,523,319. Although the number of chickens was slightly less than the number reported in

1890, there was an increase of 41.2 per cent in the total number of eggs produced. Turkeys decreased in number 74.4 per cent; geese, 30.8 per cent; and ducks, 55.2 per cent, from the numbers given for 1890.

The apparent decrease in the number of all kinds of poultry is due principally to the fact that only fowls over three months old are included in the figures for 1900, while in 1890 no such limitation was made. Taking into consideration the increase in the number of eggs, and making allowance for a possible increase in average production, it appears probable that there has been an actual addition, since 1890, to the number of fowls over three months old.

LIVE STOCK IN CONNECTICUT AND ARIZONA.

The great difference in general character between the live-stock industry in the Eastern states and in the range states of the West, is shown by Table 18, when considered in connection with the following facts: In Connecticut, the value of live stock, June 1, 1900, was \$10,932,212, or 9.6 per cent of all farm property. The income derived from animal products was \$11,651,359, or 52.7 per cent of all farm income. In Arizona the value of the live stock was \$15,458,717, or 51.7 per cent of the value of all farm property, and the receipts from animal products were \$4,522,801, or 73.2 per cent of the total income from agriculture. In the range states, live stock constitutes a larger part of all farm property, and also yields a larger relative portion of all farm income. The receipts from animal products represent a much larger percentage on the investment in live stock in Connecticut than in Arizona, being 106.6 per cent for the former and 29.3 per cent for the latter.

TABLE 18.—ANIMAL PRODUCTS IN 1899, IN CONNECTICUT AND ARIZONA.

PRODUCTS.	CONNECTICUT.		ARIZONA.	
	Value.	Per cent of total.	Value.	Per cent of total.
Total.....	\$11,651,359	100.0	\$4,522,801	100.0
Animals sold and slaughtered.....	2,014,358	17.3	3,204,758	70.9
Dairy produce.....	7,090,188	60.9	540,700	12.0
Poultry and eggs.....	2,507,626	21.5	278,370	6.1
Wool and mohair.....	22,711	0.2	481,484	9.5
Honey and wax.....	16,576	0.1	67,489	1.5

It is significant that while in Connecticut the greater portion of income from live stock is derived from those branches of the industry involving in their conduct the largest relative expense, in the Western states the reverse is true. The value of the reported farm products fed to animals and poultry in Connecticut in 1899 was equal to 56.5 per cent of the value of the live stock, while in Arizona the corresponding per cent was but 5.3.

VEGETABLE PRODUCTS OF 1899.

TABLE 19.—ACRES, QUANTITIES, AND VALUES OF THE VEGETABLE PRODUCTS OF 1899.

PRODUCTS.	Acres.	Unit of measure or weight.	Quantity.	Value.
Corn.....	47,914	Bushels.....	1,931,510	\$994,885
Wheat.....	393	Bushels.....	8,660	6,080
Oats.....	9,888	Bushels.....	316,380	103,459
Barley.....	187	Bushels.....	3,400	1,856
Rye.....	10,282	Bushels.....	203,400	112,262
Buckwheat.....	3,423	Bushels.....	62,962	33,346
Flaxseed.....	3	Bushels.....	30	17
Clover seed.....		Bushels.....	18	100
Grass seed.....		Bushels.....	296	148
Hay and forage.....	478,555	Tons.....	543,102	6,001,280
Miscellaneous.....				4,015
Tobacco.....	10,120	Pounds.....	16,930,770	3,074,022
Dry beans.....	341	Bushels.....	6,428	10,232
Dry pease.....	57	Bushels.....	462	628
Potatoes.....	27,148	Bushels.....	3,493,534	1,714,658
Sweet potatoes.....	2	Bushels.....	130	93
Onions.....	1,206	Bushels.....	422,591	230,815
Miscellaneous vegetables.....	11,143			1,036,087
Maple sugar.....		Pounds.....	4,930	750
Maple sirup.....		Gallons.....	948	986
Small fruits.....	2,070			278,373
Grapes.....	1,170	Centals.....	18,229	243,112
Orchard fruits.....	130,914			1,011,359
Nuts.....				17,432
Forest products.....				1,275,720
Flowers and plants.....	188			487,338
Seeds.....	179			44,181
Nursery stock.....	606			142,355
Total.....	634,734			16,625,589

¹ Estimated from number of trees or vines.

² Including value of raisins, wine, etc.

The value of the various crops in 1899 was \$16,625,589. Of this amount, hay and forage contributed 36.1 per cent; tobacco, 18.5 per cent; vegetables, including potatoes and onions, 18 per cent; fruits and nuts, 8.1 per cent; cereals, 7.5 per cent; and other products, 11.8 per cent. The value of that portion of products fed to live stock on the farms of the producers was \$6,178,000. Deducting this amount leaves \$10,447,589, which, added to the sum derived from animal products, gives \$22,098,948, the gross farm income.

The large area devoted to hay and forage was quite evenly distributed over the state. The average yield per acre was 1.14 tons, and the average values were \$11.05 per ton, and \$12.54 per acre.

TOBACCO.

By far the most valuable "cash" crop in Connecticut is tobacco. Nearly the entire tobacco-growing area is located in the Connecticut and the Housatonic valleys. Table 20 presents, so far as can be shown by census figures, the statistics of the crop for the last fifty years.

TABLE 20.—ACREAGE AND YIELD OF TOBACCO, 1849 TO 1899.

YEAR.	Acres.	Pounds.
1899.....	10,120	16,930,770
1889.....	6,381	8,874,924
1879.....	8,666	14,044,652
1869.....		8,328,798
1859.....		6,000,133
1849.....		1,267,624

In 1889 Connecticut ranked eleventh in quantity produced and first in average yield per acre. The average yield for the United States was 702 pounds. For Connecticut, in the same year, it was 1,402 pounds, and in 1899, 1,673 pounds. Connecticut will, therefore, in all probability rank first in average yield, as in the quality of its production.

The average price of Connecticut tobacco in 1899 was 18.2 cents per pound. The tobacco grown in the state is largely confined to the grades used for cigar wrappers and binders. The higher grades, suitable for the making of light wrappers, have an average selling price of from 45 to 58 cents a pound. The dark-wrapper grades are worth from 12 to 20 cents per pound, and the lower grades command lower prices.

Some years ago, when the prevailing demand was for strong cigars with dark wrappers, tobacco was grown as a rule on the heavy soil and meadow land of the Connecticut Valley. With a change in popular taste, which now calls for light wrappers and mild smoking tobacco, the heavier soil has been largely abandoned for the light, alluvial, sandy terraces and plains bordering on the Connecticut River, which 30 years ago were largely waste lands.

Two leading varieties furnish the greater portion of the tobacco grown in the state. They are, in the order of their importance, Connecticut broadleaf and Connecticut Havana seedleaf. The larger part of the first-named variety is raised in Hartford county east of the Connecticut River, while the Havana seedleaf is grown principally in the western portion of the Connecticut Valley.

Table 21 presents the acreage and production of tobacco on farms of certain specified classes.

TABLE 21.—ACREAGE AND PRODUCTION OF TOBACCO ON FARMS OF SPECIFIED CLASSES IN 1899.

CLASSES.	Number of farms reporting.	NUMBER OF ACRES.		NUMBER OF POUNDS.	
		Total.	Average per farm.	Total.	Average per acre.
Total	2,909	10,120	3.5	16,930,770	1,673
White farmers	2,802	10,104	3.5	16,908,030	1,673
Negro farmers	7	16	2.3	21,740	1,359
Owners ¹	2,458	8,474	3.4	14,159,700	1,671
Managers	27	69	2.6	105,215	1,525
Cash tenants	184	589	3.2	976,325	1,658
Share tenants	240	988	4.1	1,689,530	1,710
Under 20 acres	528	1,789	3.4	2,861,928	1,600
20 to 99 acres	1,516	5,343	3.5	8,984,256	1,681
100 to 174 acres	563	1,856	3.3	3,146,894	1,696
175 to 259 acres	197	663	3.4	1,111,624	1,677
260 acres and over	105	469	4.4	826,068	1,761

¹ Including "part owners" and "owners and tenants."

Tobacco was grown on 2,909 farms, of which 528 contain less than 20 acres each; 1,516, from 20 to 99 acres; 760, from 100 to 259 acres; and 105, 260 acres and over. It was the principal source of income of 1,960 farms, or 67.4 per cent of the farms growing it. It was also the principal source of income of all the farms containing less than 3 acres which raised it. Of the groups by size mentioned above, it was respectively the principal source of income

of 485, or 91.9 per cent; 1,096, or 72.3 per cent; 341, or 44.9 per cent; and 38, or 36.2 per cent. It was thus the principal source of income of nearly all of the small farms on which it was grown, and an incidental crop of the largest farms.

CHANGES IN CROPS SINCE 1889.

Table 22 presents the acreage and products of the most important crops in 1889 and 1899.

TABLE 22.—ACREAGE AND PRODUCTION OF PRINCIPAL FARM CROPS: 1889 AND 1899.

CROPS.	NUMBER OF ACRES.		NUMBER OF BUSHELS.	
	1899	1889	1899	1889
Barley	137	273	3,400	5,747
Buckwheat	3,423	4,006	62,962	46,104
Corn	47,914	40,445	1,931,510	1,471,979
Oats	9,883	21,428	316,380	593,601
Rye	10,282	16,100	203,400	214,935
Wheat	393	443	8,660	7,482
Hay and forage	478,555	511,728	1,543,192	1,612,906
Potatoes and sweet potatoes	27,150	23,099	3,493,664	1,657,995
Tobacco	10,120	6,331	216,930,770	8,874,924

¹ Tons.

² Pounds.

Of the cereals grown, corn alone shows an increased acreage over that reported in 1889. To meet the competition of the new farms of the West, the Connecticut farmer has been turning gradually from the cultivation of cereals to other branches of agriculture more profitable in his section. The rapid growth of the dairy in the past fifty years in all parts of the state, and the use of corn in feeding milch cows, has led to an increase in the area devoted to the production of that grain. The acreage in corn in 1899 was 18.5 per cent greater than ten years before, and the production was 31.2 per cent greater. The average yield per acre of nearly all other crops was also larger in 1899 than in 1889. This increase may indicate either a more favorable year, or better methods of farming. More complete investigation alone can determine.

PRODUCTION OF CORN ON SPECIFIED GROUPS OF FARMS.

Table 23 gives, for corn, statistics similar to those presented for tobacco in Table 21.

TABLE 23.—ACREAGE AND PRODUCTION OF CORN ON FARMS OF SPECIFIED CLASSES IN 1899.

CLASSES.	Number of farms reporting.	NUMBER OF ACRES.		NUMBER OF BUSHELS.	
		Total.	Average per farm.	Total.	Average per acre.
Total ¹	16,223	47,914	3.0	1,931,510	40.3
White farmers	16,176	47,813	3.0	1,928,520	40.3
Negro farmers	47	101	2.1	2,990	29.6
Owners ¹	13,886	39,716	2.9	1,609,210	40.5
Managers	431	1,692	3.9	68,750	40.6
Cash tenants	1,428	4,516	3.2	171,170	37.9
Share tenants	478	1,990	4.2	82,380	41.4
Under 20 acres	1,561	2,154	1.4	75,340	35.0
20 to 99 acres	8,073	18,947	2.3	732,480	38.6
100 to 174 acres	4,139	14,230	3.4	583,400	41.0
175 to 259 acres	1,493	6,631	4.4	299,970	45.2
260 acres and over	957	5,952	6.2	240,320	40.4

¹ Including "part owners" and "owners and tenants."

The production of corn was less per acre on the farms of colored farmers than on those of white farmers, as was the production of tobacco. The yield of corn was also, as a rule, greater per acre on the larger than on the smaller farms. No deduction can be made with reference to the crops grouped by tenure, since the figures for corn are quite different from those for tobacco.

VEGETABLES AND SMALL FRUITS.

The value of all vegetables, including potatoes and onions, was \$2,981,653. Of this amount potatoes contributed 57.5 per cent. Of the 422,591 bushels of onions grown, Fairfield county reported 69.7 per cent. In 1889 the total value of garden products, including small fruits sold, was \$371,207. In 1899 the value of vegetables, other than potatoes and sweet potatoes, and onions, was \$1,036,087, and of small fruits, \$278,373, a total of \$1,314,460. The great difference between the values reported in 1889 and 1899 is doubtless caused by the fact that the figures for the latter year include more fully the values of vegetables and small fruits raised for home consumption. To the miscellaneous vegetables referred to above, 11,143 acres were devoted. A large part of this acreage was used for family gardens, the products of which were not reported in detail. Of vegetables, mention has been made only of the more important. To the cultivation of sweet corn, 1,974 acres were devoted; to cabbages, 959 acres; and to tomatoes, 774 acres.

The areas devoted to small fruits, and the products derived therefrom, were as follows: Blackberries and dewberries, 177 acres and 275,310 quarts; currants, 189 acres and 245,990 quarts; gooseberries, 12 acres and 8,010 quarts; raspberries, 366 acres and 503,210 quarts; strawberries, 1,028 acres and 2,569,120 quarts; cranberries, 275 acres and 6,921 bushels; unclassified fruits, 23 acres and 15,390 quarts.

ORCHARD FRUITS.

The changes in orchard fruits since 1890 may be seen in the following table:

TABLE 24.—ORCHARD TREES AND FRUITS: 1890 AND 1900.

FRUITS.	NUMBER OF TREES.		BUSHELS OF FRUIT.	
	1900	1890	1899	1889
Apples	1,167,312	1,114,757	3,708,981	1,993,724
Apricots	816	184	64	3
Cherries	20,390	12,680	12,271	2,875
Peaches	522,726	88,655	61,775	37,295
Pears	79,243	55,141	41,485	25,862
Plums and prunes	53,338	4,098	9,733	364

In the ten years since 1890, the number of apple trees of bearing age increased 4.7 per cent; cherry trees, 60.8; peach trees, 489.6; pear trees, 43.7; plum and prune trees, 1,201.9. The season of 1899 was unusually favorable to the apple crop, the average yield per tree being 3.2 bushels for the entire state, and the total product 86.0 per cent greater than in 1889. The very large relative increase in the number of peach and plum trees is the result of a rapid development, during the decade, of this

branch of horticulture, especially in Hartford and New Haven counties. Of the total increase of 483,326 trees, 241,115, or 49.9 per cent, were reported by these two counties.

CULTURE OF FLOWERS AND THE USE OF GLASS IN AGRICULTURE.

The area devoted to the cultivation of flowers and ornamental plants in 1899 was 188 acres, and the value of the products sold therefrom was \$487,338. These flowers and plants were grown by 208 farmers and florists. Of this number 168 made commercial floriculture their principal business.

These 168 proprietors reported greenhouses with a glass surface of 2,241,297 square feet. The capital invested in land, buildings, implements, and live stock was \$1,313,286, of which \$778,072 represents the value of buildings. Their sales of flowers and plants amounted to \$482,977, and the other products raised were worth \$25,613. They expended \$137,492 for labor and \$13,125 for fertilizers.

In addition to the 168 principal florists' establishments, 266 farms and market gardens made use of glass in the propagation of flowers, plants, or vegetables. They had an area under glass of 355,377 square feet, making, with the 1,680,973 square feet belonging to the florists' establishments, a total of 2,036,350 square feet.

EXPENDITURES FOR LABOR AND FERTILIZERS.

The amount expended in 1899 for labor, including the value of board furnished, was \$4,103,420, an average of \$152 per farm. The expenditures for fertilizers increased from \$609,649 in 1889, to \$1,078,240 in 1899, a gain of 76.9 per cent. Of the total amount expended in the latter year, \$428,170, or very nearly 40 per cent, represents the value of fertilizers used on tobacco farms. The great relative importance of commercial fertilizers, in connection with tobacco culture in Connecticut is further shown by the fact that the average expenditure per farm for such fertilizers, in 1899, was \$218 for tobacco farms, while for all farms, it was but \$40. In 1899, each farmer in the state expended, on an average, \$17 more for fertilizers than he did ten years before.

IRRIGATION.

Irrigation does not occupy a very prominent place in the agriculture of Connecticut. While the state is well supplied with running streams, the contour of the country is such that it is impracticable to irrigate large areas. The most favorable spots for the artificial application of water to aid in the growing of crops are on the bottom lands edging the streams, lands principally used for meadows. Here ditches are constructed and limited areas are irrigated with comparatively little cost. For land of greater elevation, irrigation involves considerable expense.

In 1899, 56 farms made use of irrigation. The total area under ditch was 471 acres, an average of about 8 acres per farm. The cost of the pipes, ditches, pumps, and reservoirs used on these farms was \$16,113, an average of \$34.21 per acre irrigated.